Region 10 April 2012

The U.S. Environmental Protection Agency (EPA) is studying the pollution in the Upper Columbia River from the U.S./Canada border to the Grand Coulee Dam. The study includes fish, river sediment, beach sediment, river water, upland soils, and other environmental studies.

The purpose is to find out where, how much, and when people may use beaches and campgrounds, and eat the fish. Teck's Trail Smelter, on the Columbia River approximately 10 miles north of the U.S./Canada border, historically discharged millions of tons of metals-laden slag and other wastes into the Columbia River.

The study of the Upper Columbia River area is being conducted by Teck, under a voluntary agreement with the U.S. Environmental Protection Agency. EPA is responsible for preparing the human health risk assessment portion of the study.

Sampling the beaches is an important part of the ongoing study of the Upper Columbia River

In 2005, and 2009 through 2011, as part of the risk assessment, EPA and Teck sampled 43 beaches along the Upper Columbia River. More information about the Upper Columbia River study is available from EPA's web site:

http://1.usa.gov/UCRbeach

All but three of the beaches sampled are safe for recreational use

- High lead levels at ***Bossburg Flat*** beach may pose a risk to human health. In response to these high lead levels, the National Park Service has closed the Bossburg Flat beach. EPA and the Park Service are working to determine next steps, such as identifying potential sources of the lead, better defining the contaminated area, and how best to clean up the area. For additional information from NPS:
  http://1.usa.gov/NPS_Bossburg
- ***Evans Campground*** beach has levels of lead slightly above screening levels.
- The "Swimming Hole" near ***Sheep Creek*** has levels of arsenic slightly above screening levels.

All of the other beaches are considered by EPA as safe for recreational use. The arsenic screening level EPA uses is based on the lowest cancer risk level of one in a million and the lead screening level is based on long-term exposure, daily, over many years. Because the screening levels for lead and arsenic are set very low, even the "Swimming Hole" near Sheep Creek and the beach at Evans Campground are not likely to present significant risks to visitors who swim and play in these areas.

As always, it's a good idea to avoid or reduce your exposure to contaminants. EPA and the Washington State Department of Health recommend:

- Wash hands and face after playing at the beach and before handling food.
- Wash heavily-soiled clothing and objects to remove beach sediments.
- Wash children's beach toys after play at the beach.
- Avoid muddy soil that might cling to clothes, toys, hands, or feet.
- Avoid play that gets beach soil on children's faces or in their mouths.

Recreational use *means visiting the beach for day use, or camping on the beach for two weeks a year, for 30 years. Recreational use does* ***not*** *include more intensive use of the beaches, such as year-round food gathering or camping for extended periods of several months or more.*

Black Sand Beach cleanup was completed in November, 2010

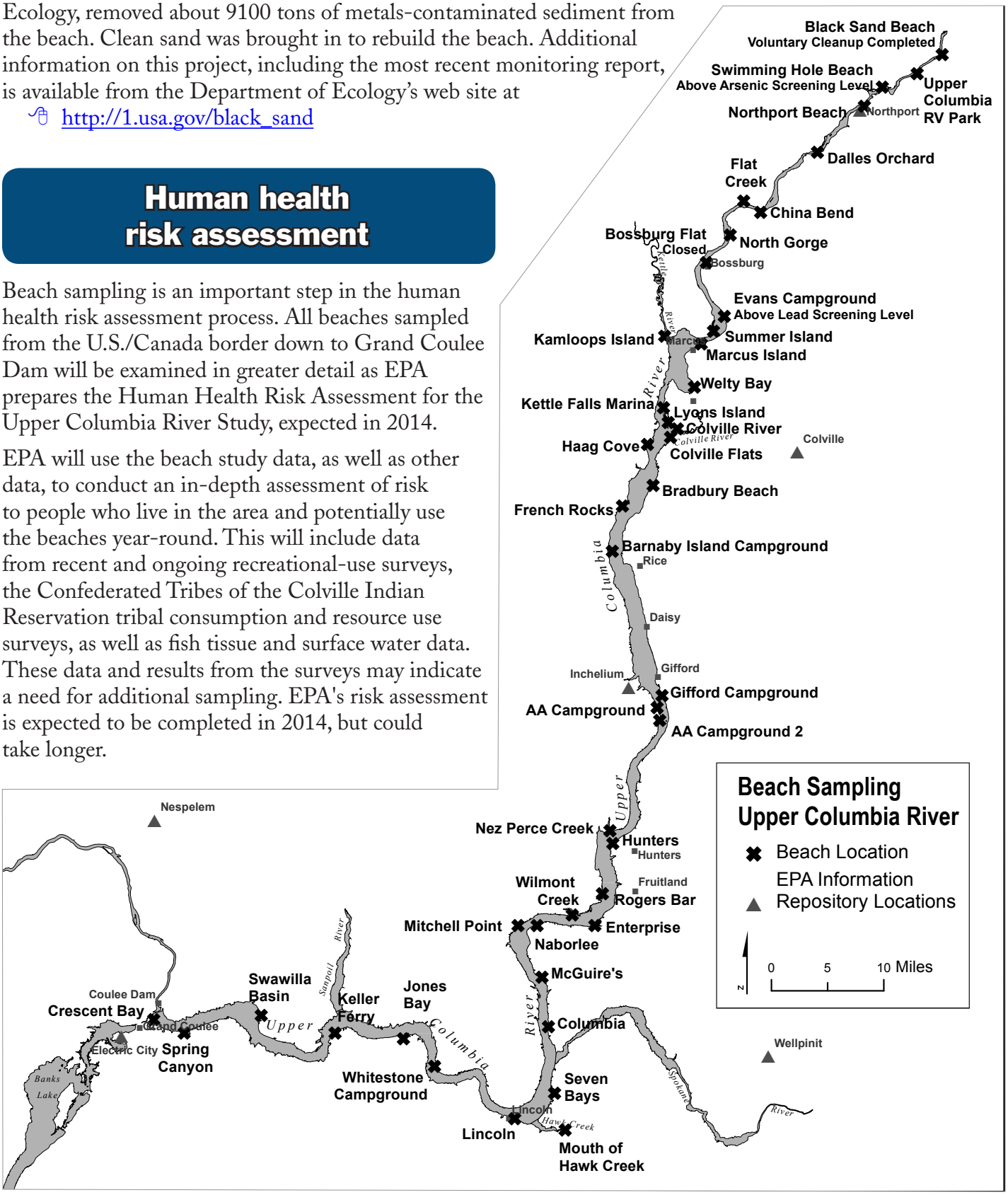
Beach sediment contaminated with slag was removed from Black Sand Beach in 2010. Teck, working with the Washington Department of Ecology, removed about 9100 tons of metals-contaminated sediment from the beach. Clean sand was brought in to rebuild the beach. Additional information on this project, including the most recent monitoring report, is available from the Department of Ecology's web site at

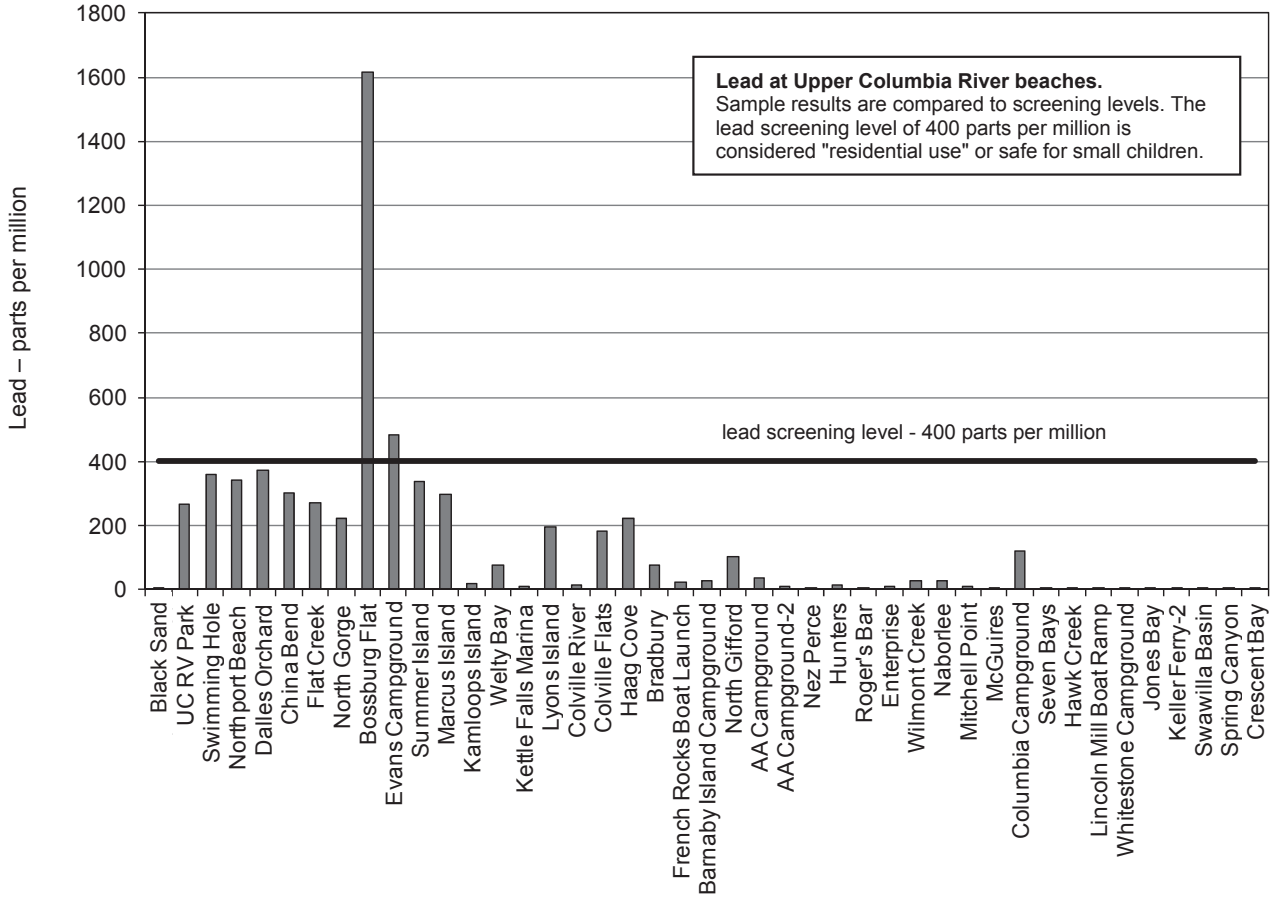
http://1.usa.gov/black_sand

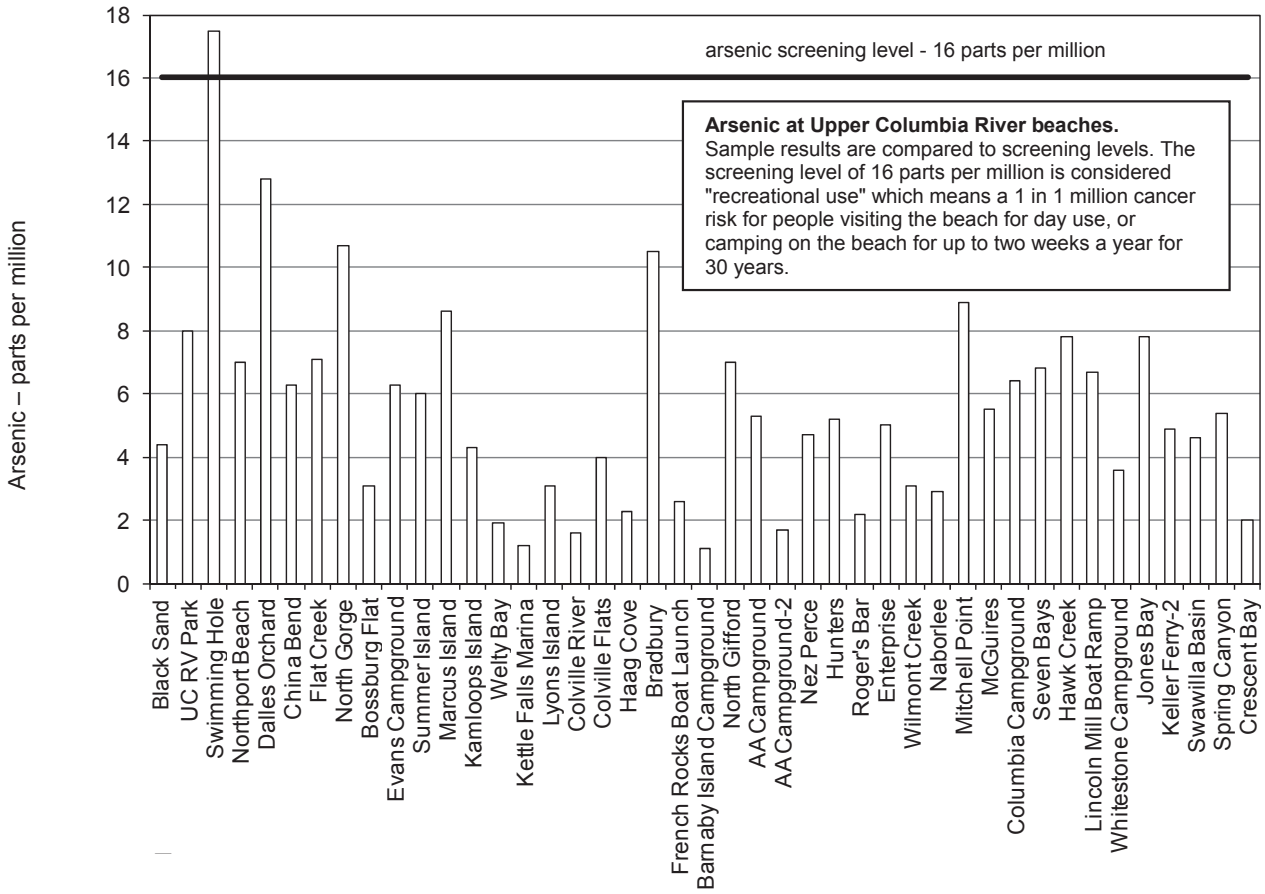
Human health risk assessment

Beach sampling is an important step in the human health risk assessment process. All beaches sampled from the U.S./Canada border down to Grand Coulee Dam will be examined in greater detail as EPA prepares the Human Health Risk Assessment for the Upper Columbia River Study, expected in 2014.

EPA will use the beach study data, as well as other data, to conduct an in-depth assessment of risk to people who live in the area and potentially use the beaches year-round. This will include data from recent and ongoing recreational-use surveys, the Confederated Tribes of the Colville Indian Reservation tribal consumption and resource use surveys, as well as fish tissue and surface water data. These data and results from the surveys may indicate a need for additional sampling. EPA's risk assessment is expected to be completed in 2014, but could take longer.




Lead – parts per million
1800
1600
1400
1200
1000
800
600
400
200
0
Lead at Upper Columbia River beaches.
Sample results are compared to screening levels. The lead screening level of 400 parts per million is considered "residential use" or safe for small children.
lead screening level - 400 parts per million
Black Sand
UC RV Park
Swimming Hole
Northport Beach
Dalles Orchard
China Bend
Flat Creek
North Gorge
Bossburg Flat
Evans Campground
Summer Island
Marcus Island
Kamloops Island
Welty Bay
Kettle Falls Marina
Lyons Island
Colville River
Colville Flats
Haag Cove
Bradbury
French Rocks Boat Launch
Barnaby Island Campground
North Gifford
AA Campground
AA Campground-2
Nez Perce
Hunters
Roger's Bar
Enterprise
Wilmont Creek
Naborlee
Mitchell Point
McGuires
Columbia Campground
Seven Bays
Hawk Creek
Lincoln Mill Boat Ramp
Whitestone Campground
Jones Bay
Keller Ferry-2
Swawilla Basin
Spring Canyon
Crescent Bay


Arsenic – parts per million
18
16
14
12
10
8
6
4
2
0
arsenic screening level - 16 parts per million
Arsenic at Upper Columbia River beaches.
Sample results are compared to screening levels. The screening level of 16 parts per million is considered "recreational use" which means a 1 in 1 million cancer risk for people visiting the beach for day use, or camping on the beach for up to two weeks a year for 30 years.
Black Sand
UC RV Park
Swimming Hole
Northport Beach
Dalles Orchard
China Bend
Flat Creek
North Gorge
Bossburg Flat
Evans Campground
Summer Island
Marcus Island
Kamloops Island
Welty Bay
Kettle Falls Marina
Lyons Island
Colville River
Colville Flats
Haag Cove
Bradbury
French Rocks Boat Launch
Barnaby Island Campground
North Gifford
AA Campground
AA Campground-2
Nez Perce
Hunters
Roger's Bar
Enterprise
Wilmont Creek
Naborlee
Mitchell Point
McGuires
Columbia Campground
Seven Bays
Hawk Creek
Lincoln Mill Boat Ramp
Whitestone Campground
Jones Bay
Keller Ferry-2
Swawilla Basin
Spring Canyon
Crescent Bay

For More Information

Official records and other documents about the Upper Columbia River study can be found at:

EPA Region 10 Superfund Records Center
1200 Sixth Avenue, Suite 900, ECL-076
Seattle, WA 98101

Please call for an appointment
206-553-4494
or toll-free at 1-800-424-4372

Contacts:

Helen Bottcher,
Upper Columbia River Project Manager
bottcher.helen@epa.gov
206-553-6069

Kay Morrison,
Community Involvement Coordinator
morrison.kay@epa.gov
206-553-8321

Learn More on the Web

Information about the Upper Columbia River Study
http://1.usa.gov/UCRbeach

Bossburg Flat Closure from National Park Service
http://1.usa.gov/NPS_Bossburg

Black Sand Beach project from Department of Ecology
http://1.usa.gov/black_sand